

YK-FTIR031

Fourier Transform Infrared Spectrometer

Optical Material Detection Scheme



Instrument characteristics

- Accuracy improvement: Adopting a swinging interferometer structure, it has excellent stability and seismic resistance, and higher accuracy than traditional Michelson interferometers.
- Diverse testing: Adopting a large sample room design with dimensions of 200 * 260 * 160mm, compatible with various infrared accessories, such as solid tablet inserts, liquid pools, and ATR accessories. It can be equipped with large sample reflection accessories to test glass samples with dimensions of 300 * 300 * 20mm, meeting diverse testing needs.
- High sensitivity: The original imported DLATGS low-noise receiver enables trace analysis.
- Higher precision: We have adopted the original imported multi-layer coated KBr beam splitter, which has a diameter of 60mm and is equipped with a moisture-proof coating, ensuring significantly better performance than similar products. This beam splitter has the characteristics of high energy and high signal-to-noise ratio, providing you with more accurate and reliable analysis results.
- Dust and moisture prevention: The multiple sealing design and dehumidification drying box ensure adaptability to complex environments.
- Easy to maintain: The desiccant visual window is easy to observe and replace, and the energy of the interferometer can be adjusted without opening the cover, thus achieving convenient debugging.
- Other extensions: The instrument is equipped with a nitrogen blowing interface, which can reduce the interference of water and carbon dioxide in the air; The instrument comes with dehumidification function; Reserve a light source interface that can connect external light sources for extended development and use.
- Graph library function: equipped with two sets of operating systems in Chinese and English, and the Chinese system has a built-in infrared graph database.



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- Meet GMP/GLP requirements: The system complies with certification standards and can achieve functions such as electronic signature, permission allocation, and audit tracking. 3Q certification is available.

Specification parameters

Light Source	imported long-life and high-strength air-cooled ceramic infrared light source
Detector	Imported low noise DLATGS
Spectral Range	7800-350cm ⁻¹ , covering the mid infrared spectral region
Resolution Ratio	better than 1.0 cm ⁻¹
Scanning Speed	2mm/S
Signal To Noise Ratio	45000:1 (P-P value, around 2100cm ⁻¹ , 4cm ⁻¹ resolution, 1-minute data collection)
Wave number Accuracy	0.01 cm ⁻¹
Baseline Straightness	≤ 0.1% T
Beam Splitter Diameter	60mm
Beam Splitter	imported multi-layer coated KBr with moisture-proof coating
Aperture Ratio	1/3.2
Laser	VCSEL Laser
Sample Beam Diameter	10 mm
Beam Diameter	30 mm
Interferometers	automatic calibration
Cleaning Function	Yes
External Dimensions	590 * 390 * 190mm
Sample Room Size	200 * 260 * 160mm
Data Transmission	USB 2.0
Working Voltage	AC220V DC12V 40W
Operating System	Win10 and above systems
Weight	26 kg
Environmental Temperature	15-28 °C
Relative Humidity	< 65% (no condensation)

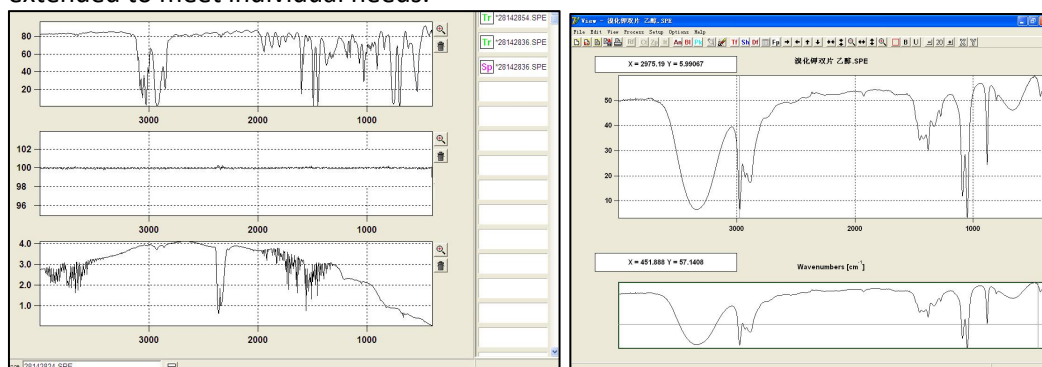
Instrument configuration

1. FTIR031 Fourier Transform Infrared Spectrometer
2. Supporting English software
3. AC power adapter and cable
4. USB data cable

5. Standard calibration sheet (polystyrene)
6. 1 set of supporting tools
7. Quick operation guide
8. Color changing silicone
9. Transmission test attachments
10. Reflection test attachments

Software

The system software of FTIR031 can provide filtering, baseline correction, interactive editing, and data manipulation on the analysis model of interferograms or spectra. At the same time, it also has functions such as spectral deduction, mixed deduction, filtering derivation, and spectral preview. The data input and output can be in ASCII or JCAMP format. Other commercial programs, including Thermo/Galactic GRAMS, can also be used, such as library search. The Interspec software program is written in 32-bit protected mode. By adding other commercial programs such as search, component identification, Kramers Kronig transformation, chemical statistics, etc., the functionality of the program can be extended to meet individual needs.



Thank you for your inquiry
 We hope to help you solve testing problems!